

General

Title

Antibiotic utilization: summary of outpatient utilization of antibiotic prescriptions during the measurement year, stratified by age and gender.

Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

Measure Domain

Primary Measure Domain

Related Health Care Delivery Measures: Use of Services

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure summarizes the following data on outpatient utilization of antibiotic prescriptions during the measurement year, stratified by age and gender:

- Total number of antibiotic prescriptions
- Average number of antibiotic prescriptions per member per year (PMPY)
- Total days supplied for all antibiotic prescriptions
- Average days supplied per antibiotic prescription
- Total number of prescriptions for antibiotics of concern
- Average number of prescriptions PMPY for antibiotics of concern
- Percentage of antibiotics of concern for all antibiotic prescriptions
- Average number of antibiotics PMPY, reported by drug class:
 - For selected "antibiotics of concern"

- For all other antibiotics

Rationale

Measures in the HEDIS Use of Services domain gather information about how organizations manage the provision of member care and how they use and manage resources. Use of services is affected by many member characteristics, which can vary greatly among organizations, and include age and sex, current medical condition, socioeconomic status and regional practice patterns (Medicare Payment Advisory Commission [MeDPAC], 2007).

This measure assesses the number of all antibiotic prescriptions to enrolled members, as well as antibiotics of concern, to encourage plans to reduce potential overuse, which may contribute to drug resistance.

Evidence for Rationale

Medicare Payment Advisory Commission (MedPAC). Report to congress: promoting greater efficiency in Medicare. Medicare Payment Advisory Commission (MedPAC); 2007.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

Primary Health Components

Antibiotic prescriptions

Denominator Description

For commercial, Medicaid, and Medicare product lines, all member months for the measurement year for members with the pharmacy benefit, stratified by age and gender (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

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- Total number of antibiotic prescriptions
- Average number of antibiotic prescriptions per member per year (PMPY)
- Total days supplied for all antibiotic prescriptions
- Average days supplied per antibiotic prescription
- Total number of prescriptions for antibiotics of concern
- Average number of prescriptions PMPY for antibiotics of concern
- Percentage of antibiotics of concern for all antibiotic prescriptions
- Average number of antibiotics PMPY, reported by drug class:
 - For selected "antibiotics of concern"
 - For all other antibiotics

See the related "Numerator Inclusions/Exclusions" field.

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

All HEDIS measures undergo systematic assessment of face validity with review by measurement advisory panels, expert panels, a formal public comment process and approval by the National Committee for Quality Assurance's (NCQA's) Committee on Performance Measurement and Board of Directors. Where applicable, measures also are assessed for construct validity using the Pearson correlation test. All measures undergo formal reliability testing of the performance measure score using beta-binomial statistical analysis.

Evidence for Extent of Measure Testing

Rehm B. (Assistant Vice President, Performance Measurement, National Committee for Quality Assurance, Washington, DC). Personal communication. 2015 Mar 16. 1 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Hospital Outpatient

Managed Care Plans

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

All ages

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Priority

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Not within an IOM Care Need

IOM Domain

Not within an IOM Domain

Data Collection for the Measure

Case Finding Period

The measurement year

Denominator Sampling Frame

Enrollees or beneficiaries

Denominator (Index) Event or Characteristic

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

For commercial, Medicaid, and Medicare product lines, all member months for the measurement year for members with the pharmacy benefit, stratified by age and gender. Refer to *Specific Instructions for Use of Service Tables* in the original measure documentation for more information.

Exclusions

Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

This measure summarizes the following data on outpatient utilization of antibiotic prescriptions during the measurement year, stratified by age and gender:

- *Total number of antibiotic prescriptions.* Total number of all antibiotic prescriptions for the measurement year of any duration of the medication.
- *Average number of antibiotic prescriptions per member per year (PMPY).* Annual total number of antibiotic prescriptions PMPY = [Total number of antibiotic prescriptions in the year/member months for members with a pharmacy benefit] x 12 months.
- *Total days supplied for all antibiotic prescriptions.* Count the number of days supplied for all antibiotic prescriptions during the measurement year. Identify the number of days supplied for each antibiotic prescription and sum the days for all antibiotic prescriptions during the measurement year.
- *Average number of days supplied per antibiotic prescription.* Average number of days supplied per prescription = [Total days supplied for all antibiotics prescriptions in the year/Total number of antibiotic prescriptions in the year]
- *Total number of prescriptions for antibiotics of concern.* Total number of all prescriptions for antibiotics of concern during the measurement year.
- *Average number of prescriptions PMPY for antibiotics of concern.* Annual total number of prescriptions for antibiotics of concern PMPY = [Annual number of prescriptions for antibiotics of concern/member months for members with a pharmacy benefit] x 12 months.
- *Percentage of antibiotics of concern of all antibiotic prescriptions.* Percentage of prescriptions for antibiotics of concern of all antibiotic prescriptions = [Total number of prescriptions for antibiotics of concern in the year/Total number of antibiotic prescriptions in the year].
- *Average number of antibiotics PMPY reported by drug class.* Utilization of antibiotic prescriptions by drug class for the following:
 - *Antibiotics of concern.* Utilization of antibiotics of concern by the following antibiotic drug classes:
 - Amoxicillin/clavulanate
 - Azithromycin and clarithromycin
 - Cephalosporin (includes second, third, and fourth-generation cephalosporins)
 - Clindamycin
 - Ketolide
 - Quinolone
 - Miscellaneous antibiotics of concern
 - *All other antibiotics.* Utilization of all other antibiotics by the following antibiotic drug classes:
 - Absorbable sulfonamide
 - Aminoglycoside
 - Cephalosporin (includes first generation only)
 - Lincosamide (other than clindamycin)
 - Macrolide (other than azithromycin and clarithromycin)
 - Penicillin (other than amoxicillin/clavulanate)
 - Tetracycline
 - Miscellaneous antibiotics

Note: Refer to Tables ABX-A in the original measure documentation for a list of antibiotic medications, ABX-B for a list of antibiotics of concern by NCQA drug class, and ABX-C for a list of all other antibiotics by NCQA drug class.

Exclusions

Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Pharmacy data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Ratio

Interpretation of Score

Does not apply to this measure (i.e., there is no pre-defined preference for the measure score)

Allowance for Patient or Population Factors

not defined yet

Description of Allowance for Patient or Population Factors

This measure requires that separate rates be reported for commercial—by product or combined HMO/POS, total Medicaid, Medicaid/Medicare dual-eligibles, Medicaid—disabled, Medicaid—other low income, and Medicare product lines.

Measure results are stratified by age and gender.

Standard of Comparison

not defined yet

Identifying Information

Original Title

Antibiotic utilization (ABX).

Measure Collection Name

HEDIS 2016: Health Plan Collection

Measure Set Name

Utilization and Risk Adjusted Utilization

Measure Subset Name

Utilization

Submitter

National Committee for Quality Assurance - Health Care Accreditation Organization

Developer

National Committee for Quality Assurance - Health Care Accreditation Organization

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

Financial Disclosures/Other Potential Conflicts of Interest

In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal of this Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Oct

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

This measure updates previous versions:

- National Committee for Quality Assurance (NCQA). HEDIS 2015: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.
- National Committee for Quality Assurance (NCQA). HEDIS 2015: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.

Measure Availability

Source available for purchase from the [National Committee for Quality Measurement \(NCQA\) Web site](#) .

For more information, contact NCQA at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org .

Companion Documents

The following is available:

- National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical update. Washington (DC): National Committee for Quality Assurance (NCQA); 2015 Oct 1. 12 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org .

NQMC Status

This NQMC summary was completed by ECRI Institute on March 27, 2009. The information was verified by the measure developer on May 29, 2009.

This NQMC summary was updated by ECRI Institute on February 8, 2010 and on June 8, 2011.

This NQMC summary was retrofitted into the new template on July 4, 2011.

This NQMC summary was updated by ECRI Institute on October 5, 2012, August 5, 2013, March 3, 2014, April 10, 2015, and again on March 29, 2016.

Copyright Statement

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

For detailed specifications regarding the National Committee on Quality Assurance (NCQA) measures, refer to *HEDIS Volume 2: Technical Specifications for Health Plans*, available from the NCQA Web site at www.ncqa.org .

Production

Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

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